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west virginia department of environmental protection

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Division of Air Quality  
601 57<sup>th</sup> ST SE  
Charleston, WV 25304

Austin Caperton, Cabinet Secretary  
dep.wv.gov

August 23, 2018

Andrew P. Blake, City Manager  
City of Ranson  
Via email to [ABlake@ransonwv.us](mailto:ABlake@ransonwv.us)

Dear Mr. Blake:

I received your letter regarding questions about the Rockwool Plant via email. As you correctly pointed out, WV DEP conducted a full [air] permitting process. Thus, the Division of Air Quality (DAQ) has fulfilled its obligations under federal and state law at this point. Your letter was directed to both Trent Ogilvie (Rockwool, CEO) and me. I want to emphasize the only formal relationship between the two entities is that of Permittee (DAQ) and the Permittee (Rockwool). DAQ issued the air permit and will ensure that the company complies with all applicable requirements. DAQ does not control Rockwool's business decisions and its activities outside the confines of the air permit.

Your letter contains eleven (11) enumerated questions. Most of them appear to be directed to Rockwool and address topics that DAQ cannot address. That is the case for parts of questions 1, 2, 3, and 6 and all of questions 5, 9, 10 and 11.

**Question 1:** *We understand that the Rockwool-RAN melting furnace is permitted to be fueled by as much as 91 tons per day (tpd) of lump coal or petroleum coke. On August 8, 2018, Rockwool North America's CEO committed to Ranson Mayor Duke Pierson and announced publicly that Rockwool will not use or burn pet coke in the Ranson facility. What assurances or permit changes is Rockwool able to provide that this commitment to not use petroleum coke will be maintained?*

**Question 2:** *We understand that mineral wool production plants can use raw materials including indigenous rock, slag and minerals. Your current permit allows at page 18 the use of "slag" as a raw feedstock material. We understand from Rockwool North America's web site that your materials may use between 19% to 42% "recycled material" as a raw material.*

- a. *Will any of the recycled material be industrial slag? What are the projected amounts that will be used, as a percentage of raw materials, and in units per day and/or year?*
- b. *What will be the supply sources of industrial slags that may be used? Will there be different and varying sources of such materials?*
- c. *What is the nature or makeup of the industrial slag that will be used? Will the makeup of this slag vary by supply source and shipment? What is the process in place for Rockwool*

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*to have knowledge of the materials composition of different sources of slag, particularly with respect to potential metals, toxins, or other materials of concern that might potentially be burned, melted, emitted, or otherwise become an output of the plant?*

**DAQ Answer (1 & 2):** Many of the specific issues raised in questions 1 & 2 are those which cannot be addressed by DAQ. The role of DAQ is to ensure that emission limits from the facility meet all regulatory requirements. Compliance with the Melting Furnace emission limits (Table 4.1.1(a)) is based on a complex suite of methods independent of the volume or type of fuel used in the melting process.

**Question 3:** *We understand that ammonia will be used in the SNCR control technology process in the melting furnace. What are the storage capacities of the ammonia tanks at the planned Rockwool plant? What are the expected storage levels that will actually occur in these tanks? What form will such ammonia be (i.e. aqueous or anhydrous)? What form will be transported to the site? What form will be stored at the site? Will Rockwool be required to establish emergency response or evacuation plans for workers or nearby facilities such as schools?*

**DAQ Answer:** Ammonia is not a regulated pollutant under 45CSR13 or 45CSR14 and, while the transport and storage is subject to other regulatory requirements, they are not under the purview of DAQ related to this permit.

**Question 4:** *We understand that the permit includes a secondary waste incinerator at the Ranson facility. What role will this play in the production process? What could and will be permissibly burned or used in that equipment?*

**DAQ Answer:** There is no separate secondary waste incinerator permitted at the RAN Facility. However, the Melting Furnace will be capable of processing recycled material.

**Question 6:** *The Rockwool PSD permit states at p. 34 that the permitted emissions from the gutter exhaust, spinning chamber, curing ovens, curing oven hoods, and cooling section equipment will include 92.89 tons per year of PM, 92.89 TPY of PM-10, and 92.89 TPY of Mineral Fiber. Are these three 92.89 permitted emission amounts referring to the same emissions, or three separate types of emissions which each have the same numeric value? What is the nature of a "Mineral Fiber" emission? Will the nature, makeup or quality of emitted Mineral Fiber or particulate matter change, depending on the type of material used in the melting furnace (that is, the questions in #2)?*

**DAQ Answer:** The permit conservatively assumed that all the filterable particulate matter emitted from the Wet Electro-Static Precipitator (WESP) was also Mineral Fiber emissions. Therefore, both of those emission limits represent the same material. This limit, pursuant to information in the permit application, was based on stack testing at a similar facility and scaled to the RAN Facility. It is important to note that the filterable PM and PM<sub>10</sub> emission limits are each, regardless of the overlap in emissions counting toward each, an independent and enforceable limit. Compliance with one does not determine compliance with the other.

Mineral Fibers are the synthetic vitreous fibers that are the primary constituency of the mineral wool insulation and ceiling tiles produced at the RAN Facility. While the make-up of these mineral fibers may change depending on the manufacturing process, once emitted as particulate matter they are only regulated as such (and as a PM-HAP) independent of the specific molecular make-up of the fiber.



**Question 7:** *It appears that the Rockwool-Ranson plant will utilize "Afterburner" technology to control emissions of Volatile Organic Compounds such as phenol, formaldehyde, and methanol. Will the Afterburner control other pollutants such as PM or other pollutants? Are the permitted emissions amounts established in the Pre-Construction permit emissions with Afterburner controls, or measured without taking into account the emissions-reducing effects of the Afterburner?*

**DAQ Answer:** The Afterburner (thermal oxidizer) is defined as the Best Available Control Technology (BACT) for all emissions of VOCs (including VOC-HAPs such as phenol, methanol, and formaldehyde) emitted from the Curing Oven. The Afterburner will also provide some control of CO emissions as emitted from the natural gas burners providing heat to the Curing Oven. While the Afterburner does not control particulate matter or any other pollutants, all emissions collected from the Gutter Exhaust, Spinning Chamber, Curing Oven Hoods, Curing Oven, and Cooling Section are vented through the WESP prior to release. The permitted limits are with the Afterburner's control efficiency taken into consideration.

**Question 8:** *Has Rockwool or DEP conducted a Human Health Risk Assessment or health-based air modeling and screening analysis with respect to the toxic air pollutant emissions from the Ranson plant? Is the WV DEP and/or Rockwool willing to conduct such an analysis and provide such results to the public as requested by the Jefferson County Board of Education?*

**DAQ Answer:** The permitting process established by the Clean Air Act, as implemented by U.S. EPA and DAQ, is designed to protect human health. DAQ is not required to conduct a Human Health Risk Assessment (HHRA) or health-based air modeling and screening analysis with respect to the toxic air pollutant emissions from the Ranson plant. The DAQ does not possess the resources to conduct the kind of comprehensive assessment you describe. The U.S. EPA outlines the components of a HHRA at <https://www.epa.gov/risk/conducting-human-health-risk-assessment>.

Sincerely,



William F. Durham  
Director